Department of Health and Human Services
Maine People Living Safe, Healthy and Productive Lives

Department of Health and Human Services
Maine Center for Disease Control and Prevention
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Document Name: SANITARY SURVEY FORM FOR LARGE COMMUNITY SYSTEMS USING GROUNDWATER

PURPOSE: This form is used during the sanitary survey of large community public water systems (PWS) that use only groundwater as a source of water.

SCOPE: This form is used for PUC regulated community PWS using only groundwater as a source of water.

ORIGINATOR: Field Inspection Team

OWNER: PWS Inspection Team Manager

DEFINITIONS:

Sanitary Survey: A sanitary survey is defined by 40 CFR 141.2 as "an on-site review of the water source, facilities, equipment, operation, and maintenance of a public water system for the purpose of evaluating the adequacy of such sources, facilities, equipment, operation, and maintenance for producing and distributing safe drinking water"

RESPONSIBILTIES: Drinking Water Program PWS Inspectors complete sanitary surveys using the latest revision form specific to the PWS being inspected.

ASSOCIATED DOCUMENTS:

Sanitary Survey – Large System Procedure (DWP0115)
Sanitary Survey Form for Large Community Systems using Surface Water (DWP0124)
Sanitary Survey Form for Large Community Systems using Surfacewater and Groundwater (DWP0125)
State of Maine Rules Relating to Drinking Water Program

SUPERCEDED DOCUMENTS: All previous uncontrolled versions of this sanitary survey form

RETENTION:

1. This document is retained per the DWP Record Retention Schedules.

SANITARY SURVEY FORM FOR LARGE COMMUNITY SYSTEMS USING GROUNDWATER

Date: _____ Date of Last Survey: _____

Inspector(s): _____, _____, _____

Water System Information

PWSID #: ME0090100

Water System Name: BAILEYVILLE UTILITIES DISTRICT

Water System Operating Categories: VSWS _____ or Treatment: 2 Distribution: 2

Contact Person: DANIEL PIASECKI

Cell phone: (207) 858-5898

Other Phone: (207) 223-2232

Operator Information

("T" = Treatment, "D"= Distribution)

Designated Operator:	DANIEL PIASECKI	VSWS or	"T":	I	II	III	(IV)
			"D":	I	II	III	(IV)
Operator:	ANDREW SNOWMAN	VSWS or	"T":	I	(II)	III	IV
			"D":	I	(II)	III	IV
Operator:	_____	VSWS or	"T":	I	II	III	IV
			"D":	I	II	III	IV
Operator:	_____	VSWS or	"T":	I	II	III	IV
			"D":	I	II	III	IV
Operator:	_____	VSWS or	"T":	I	II	III	IV
			"D":	I	II	III	IV
Operator:	_____	VSWS or	"T":	I	II	III	IV
			"D":	I	II	III	IV
Operator:	_____	VSWS or	"T":	I	II	III	IV
			"D":	I	II	III	IV

Does the system have a designated operator with Treatment and Distribution classifications meeting the system's classification? ☒ Yes ☐ No

_____

_____

_____

****

MANAGEMENT & OPERATION INFORMATION

Staffing

What type of management structure exists (board, selectman, etc.)? FIVE MEMBER BOARD OF TRUSTEES, UTILITY MANAGER, SUPERINTENDENT

Is there enough staff to effectively maintain the water system? ☒ Yes ☐ No

Is staff active or a member in industry organizations? ☒ Yes ☐ No

Notes: OLVER ASSOCIATES INC IS A MEMBER OF MRWA.

Public Outreach

Describe public outreach efforts: FLUSHING NOTICES, UTILITY INFORMATION

Emergency Response

Does the system have an emergency response plan? ☒ Yes ☐ No

When was it last updated? SEVERAL YEARS AGO

Do all necessary staff have a copy of the emergency response plan? ☒ Yes ☐ No

Are there alarms and are they operating properly? ☒ Yes ☐ No

Do alarms notify emergency personnel? ☒ Yes ☐ No

Does the system have an emergency generator at needed locations? ☒ Yes ☐ No

Is it regularly exercised under load? ☐ Yes ☐ No

Can the e-generator operate the whole plant? ☒ Yes ☐ No

What type of fuel does the e-generator use? ☐ Diesel ☒ Propane ☐ Other: _____

Notes: WELL 2 HAS A RIGHT ANGLE DRIVE & PROPANE GENERATOR, WTP HAS ITS OWN PROPANE GENERATOR

Budgeting Information

Does the system have a comprehensive facilities plan (master plan)? ☐ Yes ☒ No

If yes, when was it last updated _____

Are current rates covering current costs? ☒ Yes ☐ No

Does the system have an Asset Management Plan? ☐ Yes ☒ No

Notes: _____

Operations

Does the system have written operating procedures? ☐ Yes ☒ No

Are they up-to-date? ☐ Yes ☒ No

Are they under revision control (at least dated?) ☐ Yes ☒ No

Are they available where specific operations occur? ☐ Yes ☒ No

Notes: _____

_____

Recordkeeping

Does the system have:

Daily logs?	☒ Yes	☐ No	
Calibration Logs?	☒ Yes	☐ No	
Maintenance Logs?	☒ Yes	☐ No	
Chemical Receiving Logs?	☐ Yes	☐ No	☒ INVOICES
Monthly Operating Reports?	☒ Yes	☐ No	
"As-Built" plans?	☐ Yes	☐ No	☒ SOME
System specifications?	☐ Yes	☐ No	☒ SOME
In-house training records?	☒ Yes	☐ No	
Are sample results kept on file?	☒ Yes	☐ No	

Notes: _____

_____

_____

_____

SOURCE AND PUMPING INFORMATION

SOURCE NAME	DEPTH	YIELD (GPM)	CASE DIA	VENT HEIGHT	WELL SEALED PROPERLY?	VENT SCREENED?	ACTIVE/BACKUP/EMERGENCY
WELL 1	79 FT	650	18" ϕ	18"	YES	YES	ACTIVE
WELL 2	65 FT	750	18" ϕ	AIR-VAC VALVE	YES	—	ACTIVE

Please attach information for additional sources to this form. Check this box if additional information is provided: ☐

Are any wells located in a flood plain? ☒ Yes ☐ No WELL 2 IS IN ZONE A

Are wells protected from vandalism? ☒ Yes ☐ No

Can a raw water sample be taken from each well? ☒ Yes ☐ No

For multiple wells, describe how the wells are operated (e.g. one at a time with each used for a day/week/month, or wells come on based on demand, or other... note: sampling requirements are determined using this information) WELLS ARE OPERATED ONE AT A TIME BASED ON RESERVOIR LEVEL.

Notes: _____

Wellhead Protection

Does the system have a Wellhead Protection Plan? ☒ Yes ☐ No

If yes, is the Wellhead Protection Plan up-to-date and actively being used by the system? ☒ Yes ☐ No

When was the plan last updated? 1999 BY CES

Does the system own the entire amount of land within the delineated wellhead protection area? ☒ Yes ☐ No

Are zoning ordinances or other legal restrictions in place in the wellhead protection area? ☒ Yes ☐ No

List Potential Sources of Contamination (PSCs) within 300 feet of any well:

☐ Septic System/Leach Field ☐ Surface Water ☐ Fuel Storage Tanks
☐ Agricultural Lands ☐ Industrial Manufacturer ☐ Other _____

Does the system have a map delineating the recharge area(s) or aquifer(s)? ☒ Yes ☐ No

What percentage (%) of the well head protection area is owned by the system? > 90%

How many acres of the 200 day wellhead protection zone are owned by the system? 650

Does the system have a plan to purchase additional land within the protection area?

☐ Yes ☒ No

Notes: _____

****

TREATMENT INFORMATION

Treatment Plant

Have any changes to the treatment plant been made without DWP approval? ☐ Yes ☒ No

Does the system have a treatment schematic? ☒ Yes ☐ No

Housekeeping: ☐ Very Good ☒ Good ☐ Fair ☐ Poor

Is there a SCADA system? ☒ Yes ☐ No

Can the system be operated remotely? ☐ Yes ☒ No

Is all equipment installed after July 1, 2008 ANSI/NSF STD 61 Certified? ☒ Yes ☐ No

Are Material Safety Data Sheets available? ☒ Yes ☐ No

Are they located near the chemical? ☒ Yes ☐ No

Is proper safety equipment available? ☒ Yes ☐ No

Is it used? ☒ Yes ☐ No

Is eyewash station/shower within a safe distance and maintained properly? ☒ Yes ☐ No

Are there cross connections in the treatment plant? ☐ Yes ☒ No

EYEWASH BOTTLES

(make-up process water, waste water, drains, analyzer waste, fire protection, boilers, etc.)

If yes, describe: _____

Where do floor drains drain to? → TO FRENCH DRAINS

Notes: CONSTRUCTED IN 1995

Production Capacity

Average Daily Production: 0.35 TO 0.55 MGD

limited by what factor?: DEMAND

Max. Daily Production during the past year?: 0.98 MGD

limited by what factor?: WELL OUTPUT

Plant Design Capacity (what can you produce)?: 0.98 MGD

limited by what factor? WELL OUTPUT

Does the system have a master meter? ☒ Yes ☐ No

If yes, how often is it calibrated? UNKNOWN

What is the condition of the interior piping? ☒ Good ☐ Average ☐ Marginal ☐ Poor

Notes: _____

_____

_____

Wetwell (Raw Water Storage)

Number of wetwells: ZERO

Volume: _____ (Gals) Depth (Ft): _____ Width (Ft): _____ Length (Ft): _____

Is the wetwell protected from accidental spills and run-off? ☐ Yes ☐ No

Is the wetwell secure (latches? vent?) ☐ Yes ☐ No

Are wetwell vents screened with rodent/bird screen? ☐ Yes ☐ No

Are pump lubricants in contact with drinking water food grade? ☐ Yes ☐ No

Raw Water Pumping

PUMP #	1	2	3
Source Name			
Capacity (GPM)			
HP Rating			
Pump Type			
Manufacturer			
Last Service Date			
Pump Condition			
Motor Condition			

Disinfection Chemicals

☐ Chlorine Gas ☐ Chlorine Dioxide ☐ Chloramines

☐ Calcium Hypochlorite ☒ Sodium Hypochlorite

Product name: NaOCl

Manufacturer: MONSON Supplier: MONSON

Are chemicals ANSI/NSF STD 60 certified? ☒ Yes ☐ No

How documented? LABEL ON DRUM

Are chemicals being dosed within the range of their NSF 60 specification? ☒ Yes ☐ No

Application Point? ☐ Pre ☒ Post ☐ Both

Pump Type? ☒ Diaphragm ☐ Peristaltic ☐ Other _____

Is a redundant pump or spare parts available? ☒ Yes ☐ No

What controls the chemical pump operation?

Pressure switch for well pump ____ Flowmeter____

Other: FLOW SWITCH

Size of Day Tank (gallons)? 35 Bulk Storage (gallons)? 30

A full day tank = 10 days of supply?

Tanks and chemical room labeled properly? ☒ Yes ☐ No

How is chemical monitored? ☒ Continuously ☐ Daily ☐ Other _____

What is the chlorine analyzer type? ATI Q46

How often is the analyzer calibrated? (recommend mnfgr's specs) _____

Where is the residual monitored? ENTRY POINT

What is the target residual? GREATER THAN 0.1 mg/L AT ENTRY POINT

Will plant shut down on High/Low levels of disinfectant? ☐ Yes ☒ No

What are the alarm setpoints? High ____ ppm Low ____ ppm

Are there adequate backflow prevention/antisiphon devices? ☒ Yes ☐ No

Is spill containment adequate? ☒ Yes ☐ No

Are there sample taps before and after treatment? ENTIRE ROOM ☒ Yes ☐ No

What is the mixing recipe? 4 GALLONS OF WATER TO 1 GALLON OF SODIUM HYPOCHLORITE.

Notes: ON SCALE

Corrosion Control Chemicals

☐ Soda Ash ☐ Caustic ☐ Other

Product name: _____

Manufacturer: _____ Supplier: _____

Are chemicals ANSI/NSF STD 60 certified? ☐ Yes ☐ No

How documented? _____

Are chemicals being dosed within the range of their NSF 60 specification? ☐ Yes ☐ No

Application Point? ☐ Pre ☐ Post ☐ Both

Pump Type? ☐ Diaphragm ☐ Peristaltic ☐ Other _____

Is a redundant pump or spare parts available? ☐ Yes ☐ No

What controls the chemical pump operation?

Pressure switch for well pump ____ Flowmeter____

Other: _____

Size of Day Tank (gallons)? _____ Bulk Storage (gallons)? _____

A full day tank = _____ days of supply?

Tanks and chemical room labeled properly? ☐ Yes ☐ No

How is chemical monitored? ☐ Continuously ☐ Daily ☐ Other _____

What is the analyzer type? _____

How often is the analyzer calibrated? (recommend mnfgr's specs) _____

Where is the residual monitored? _____

What is the target residual? _____

Will plant shut down on High/Low levels of chemical? ☐ Yes ☐ No

What are the alarm setpoints? High _____ pH Std Units Low _____ pH Std Units

Are there adequate backflow prevention/antisiphon devices? ☐ Yes ☐ No

Is spill containment adequate? ☐ Yes ☐ No

Are there sample taps before and after treatment? ☐ Yes ☐ No

What is the mixing recipe? _____

_____

Notes: _____

_____

_____

pH Adjustment Chemicals (if different than Corrosion Control Chemicals)

☐ Soda Ash ☐ Caustic ☐ Other

Product name: _____

Manufacturer: _____ Supplier: _____

Are chemicals ANSI/NSF STD 60 certified? ☐ Yes ☐ No

How documented? _____

Are chemicals being dosed within the range of their NSF 60 specification? ☐ Yes ☐ No

Application Point? ☐ Pre ☐ Post ☐ Both

Pump Type? ☐ Diaphragm ☐ Peristaltic ☐ Other _____

Is a redundant pump or spare parts available? ☐ Yes ☐ No

What controls the chemical pump operation?

Pressure switch for well pump ____ Flowmeter____

Other: _____

Size of Day Tank (gallons)? _____ Bulk Storage (gallons)? _____

A full day tank = _____ days of supply?

Tanks and chemical room labeled properly? ☐ Yes ☐ No

How is chemical monitored? ☐ Continuously ☐ Daily ☐ Other _____

What is the analyzer type? _____

How often is the analyzer calibrated? (recommend mnfgr's specs) _____

Where is the pH monitored? _____

What is the target residual? _____

Will plant shut down on High/Low levels of chemical? ☐ Yes ☐ No

What are the alarm setpoints? High _____ ppm Low _____ ppm

Are there adequate backflow prevention/antisiphon devices? ☐ Yes ☐ No

Is spill containment adequate? ☐ Yes ☐ No

Are there sample taps before and after treatment? ☐ Yes ☐ No

What is the mixing recipe? _____

_____

Notes: _____

_____

_____

Fluoride Chemicals

☐ Sodium Fluoride ☒ Fluorosilicic Acid

Product name: H_2SiF_6

Manufacturer: MONSON Supplier: MONSON

Are chemicals ANSI/NSF STD 60 certified? ☒ Yes ☐ No

How documented? LABEL ON DRUM

Are chemicals being dosed within the range of their NSF 60 specification? ☒ Yes ☐ No

Application Point? ☐ Pre ☒ Post ☐ Both

Pump Type? ☒ Diaphragm ☐ Peristaltic ☐ Other _____

Is a redundant pump or spare parts available? ☒ Yes ☐ No

What controls the chemical pump operation?

Pressure switch for well pump ____ Flowmeter____

Other: FLOW SWITCH

Size of Day Tank (gallons)? 35 Bulk Storage (gallons)? 45

A full day tank = 15 days of supply?

Are Fluorosilicic Acid tanks properly vented? ☒ Yes ☐ No

Tanks and chemical room labeled properly? ☒ Yes ☐ No

How is chemical monitored? ☐ Continuously ☒ Daily ☐ Other ____

What is the analyzer type? HACH TABLETOP SPECTRO PHOTOMETER (SPADNS 2)

How often is the analyzer calibrated? (recommend mnfgr's specs) ____

Where is the residual monitored? ENTRY POINT

What is the target residual? 0.7 mg/L

Will plant shut down on High/Low levels of Fluoride? ☐ Yes ☒ No

What are the alarm setpoints? High ____ ppm Low ____ ppm

Are there adequate backflow prevention/antisiphon devices? ☒ Yes ☐ No

Is spill containment adequate? ☒ Yes ☐ No

Is fluoride chemical stored separately from other chemicals? ENTIRE ROOM ☒ Yes ☐ No

Is Fluorosilicic Acid on a weight scale? ☒ Yes ☐ No

Are there sample taps before and after treatment? ☒ Yes ☐ No

What is the mixing recipe? NO DILUTION - FED NEAT

Notes: ____

Air Stripping

Type of air stripping system: ☐ Lowry ☐ Shallow Tray ☐ Packed Tower ☐ Spray ☐ Other

Manufacturer: ____

Purpose: ☐ Radon Removal ☐ Corrosion Control ☐ Other:

Is post aeration water disinfected? ☐ Yes ☐ No

Are air intakes & outlets screened? ☐ Yes ☐ No

Is the air outlet located a safe distance from the air inlet? ☐ Yes ☐ No

Does the system have HEPA filters on the air intake? ☐ Yes ☐ No

Is the outlet air protected from human consumption? ☐ Yes ☐ No

Are there sample taps before and after treatment? ☐ Yes ☐ No

How often is the unit serviced? ____

Notes: _____

_____

_____

Ion Exchange

Purpose: ☐ Softening ☐ Contaminant Removal ☐ Other _____

Type: ☐ Anion ☐ Cation

Manufacturer: _____

Installer: _____

Contaminants Removed: _____

Resin Type: _____

Number of tanks: _____ ☐ Parallel ☐ Series

Is there a partial by-pass for blending purposes? ☐ Yes ☐ No

Are there sample taps before and after treatment? ☐ Yes ☐ No

Is raw & treated water routinely monitored to determine removal efficiency? ☐ Yes ☐ No

How often is the unit serviced? _____

What initiates the regeneration cycle? (enter number and units):

☐ Time: _____ ☐ Flow: _____ ☐ Other: _____

Is the salt ANSI/NSF STD 60 certified? ☐ Yes ☐ No

How documented? _____

Is there an air gap on the backwash drain line into sewer/septic? ☐ Yes ☐ No

Where is the backwash discharge disposed? _____

_____

Notes: _____

_____

Other Treatment (1)

Name: CARUS 8100

Purpose: IRON AND MANGANESE SEQUESTERING & SCALE CONTROL

Manufacturer: CARUS Supplier: _____

Are chemicals ANSI/NSF STD 60 certified? ☒ Yes ☐ No

How documented? LABEL ON DRUM

Are chemicals being dosed within the range of their NSF 60 specification? ☒ Yes ☐ No

Application Point? ☐ Pre ☒ Post ☐ Both

Pump Type? ☒ Diaphragm ☐ Peristaltic ☐ Other _____

Is a redundant pump or spare parts available? ☒ Yes ☐ No

What controls the chemical pump operation?

Pressure switch for well pump ____ Flowmeter____

Other: FLOW SWITCH

Size of Day Tank (gallons)? 35 Bulk Storage (gallons)? 30

A full day tank = 12 days of supply?

Tanks and chemical room labeled properly? ☒ Yes ☐ No

How is chemical monitored? ☐ Continuously ☐ Daily ☒ Other MASS BALANCE

What is the analyzer type? —

How often is the analyzer calibrated? (recommend mnfgr's specs) —

Where is the residual monitored? ENTRY POINT

What is the target residual? 0.35 mg/L

Will plant shut down on High/Low levels of Chemical? ☐ Yes ☒ No

What are the alarm setpoints? High — ppm Low — ppm

Are there adequate backflow prevention/antisiphon devices? ☒ Yes ☐ No

Is spill containment adequate? ☒ Yes ☐ No

Are there sample taps before and after treatment? ENTIRE ROOM ☒ Yes ☐ No

What is the mixing recipe? NO DILUTION - FED NEAT

Notes: ON SCALE

Other Treatment (2)

Name: _____

Purpose: _____

Manufacturer: _____ Supplier: _____

Are chemicals ANSI/NSF STD 60 certified? ☐ Yes ☐ No

How documented? _____

Are chemicals being dosed within the range of their NSF 60 specification? ☐ Yes ☐ No

Application Point? ☐ Pre ☐ Post ☐ Both

Pump Type? ☐ Diaphragm ☐ Peristaltic ☐ Other _____

Is a redundant pump or spare parts available? ☐ Yes ☐ No

What controls the chemical pump operation?

Pressure switch for well pump ____ Flowmeter____

Other: _____

Size of Day Tank (gallons)? _____ Bulk Storage (gallons)? _____

A full day tank = _____ days of supply?

Tanks and chemical room labeled properly? ☐ Yes ☐ No

How is chemical monitored? ☐ Continuously ☐ Daily ☐ Other _____

What is the analyzer type? _____

How often is the analyzer calibrated? (recommend mnfgr's specs) _____

Where is the residual monitored? _____

What is the target residual? _____

Will plant shut down on High/Low levels of Chemical? ☐ Yes ☐ No

What are the alarm setpoints? High _____ ppm Low _____ ppm

Are there adequate backflow prevention/antisiphon devices? ☐ Yes ☐ No

Is spill containment adequate? ☐ Yes ☐ No

Are there sample taps before and after treatment? ☐ Yes ☐ No

What is the mixing recipe? _____

_____

Notes: _____

_____

_____

****

FILTRATION PROCESS INFORMATION

(including cartridge filters)

Filtration Process

Type: ☐ Conventional ☐ Direct ☐ Cartridge ☐ Other _____

Filter Manufacturer: _____

Number of filters in use: _____ Design flow rate (if known): _____

Vessel Dimensions: _____

Date the filter media was last changed or regenerated? _____

How are filters cleaned? ☐ Air Scour ☐ Surface Wash ☐ Other _____

How is filter performance evaluated? _____

_____

Notes: _____

_____

What is the filter media: _____

**Types of media: anthracite, garnet, GAC, sand, Gravel, support gravel, manganese-greensand*

How is media loss measured? _____

Filter Backwashing

Frequency (hrs)? _____ Volume (Gals): _____

Does the system backwash with clean (finished) water? ☐ Yes ☐ No

Is backwash recycled? ☐ Yes ☐ No

If yes, percentage: _____%

Backwash is started by which of the following parameters?

☐ Headloss ☐ Time ☐ Other: _____

Is filter to waste used? ☐ Yes ☐ No

What criteria are used to determine when a filter goes back on-line? _____

How is the backwash disposed of? (recycled?): _____

_____

Notes: _____

_____

Rapid Mix

Type of Mixer: ☐ In-Line Static ☐ Other _____

What is the purpose of the rapid mix: _____

Is the mixing adequate (how is this known): _____

Notes: _____

_____

Coagulant

Chemical Used? _____

Have other types been tried? ☐ Yes ☐ No Type: _____

Does the coagulant contain acrylamide or epichlorohydrin ☐ Yes ☐ No

if yes, has the PWS submitted its annual certification? ☐ Yes ☐ No

Notes: _____

_____

Sequestrant

Chemical Used? _____

Have other types been tried? ☐ Yes ☑ No Type: _____

Does the sequestrant contain acrylamide or epichlorohydrin ☐ Yes ☐ No

if yes, has the PWS submitted its annual certification? ☐ Yes ☐ No

Notes: _____

_____

Chemical Receiving

Are chemical receiving records kept showing the chemical, date, supplier, and verification of Std 60 compliance ☒ Yes ☐ No

Notes: _____

_____

_____

_____

_____

****

FINISHED WATER INFORMATION

Finished Water Storage

☐ Clearwell ☐ Contact Tank ☐ Other _____

Depth (ft) _____ Width (ft) _____ Length (ft) _____

or vessel dimensions: _____

Number of installed units: _____

Is storage protected from spills? ☐ Yes ☐ No

Can storage be isolated for cleaning maintenance? ☐ Yes ☐ No

Is storage overflow located and screened properly? ☐ Yes ☐ No

Are storage vents separate from overflow? ☐ Yes ☐ No

Are storage vents screened? ☐ Yes ☐ No

Contact Tank Questions:

Is the contact tank baffled? ☐ Yes ☐ No

What is the contact time? _____

If applicable, what is the CT value? _____

Is there a potential for short-circuiting of the water flow? ☐ Yes ☐ No

What are the operating levels in the tank? High_____ Low _____

High – Low = _____ (Delta H)

Notes:_____

_____

_____

Finish Water Pumping

PUMP #	1	2	3
Source Name			
Capacity (GPM)			
HP Rating			
Pump Type			
Manufacturer			
Last Service Date			
Pump Condition			
Motor Condition			

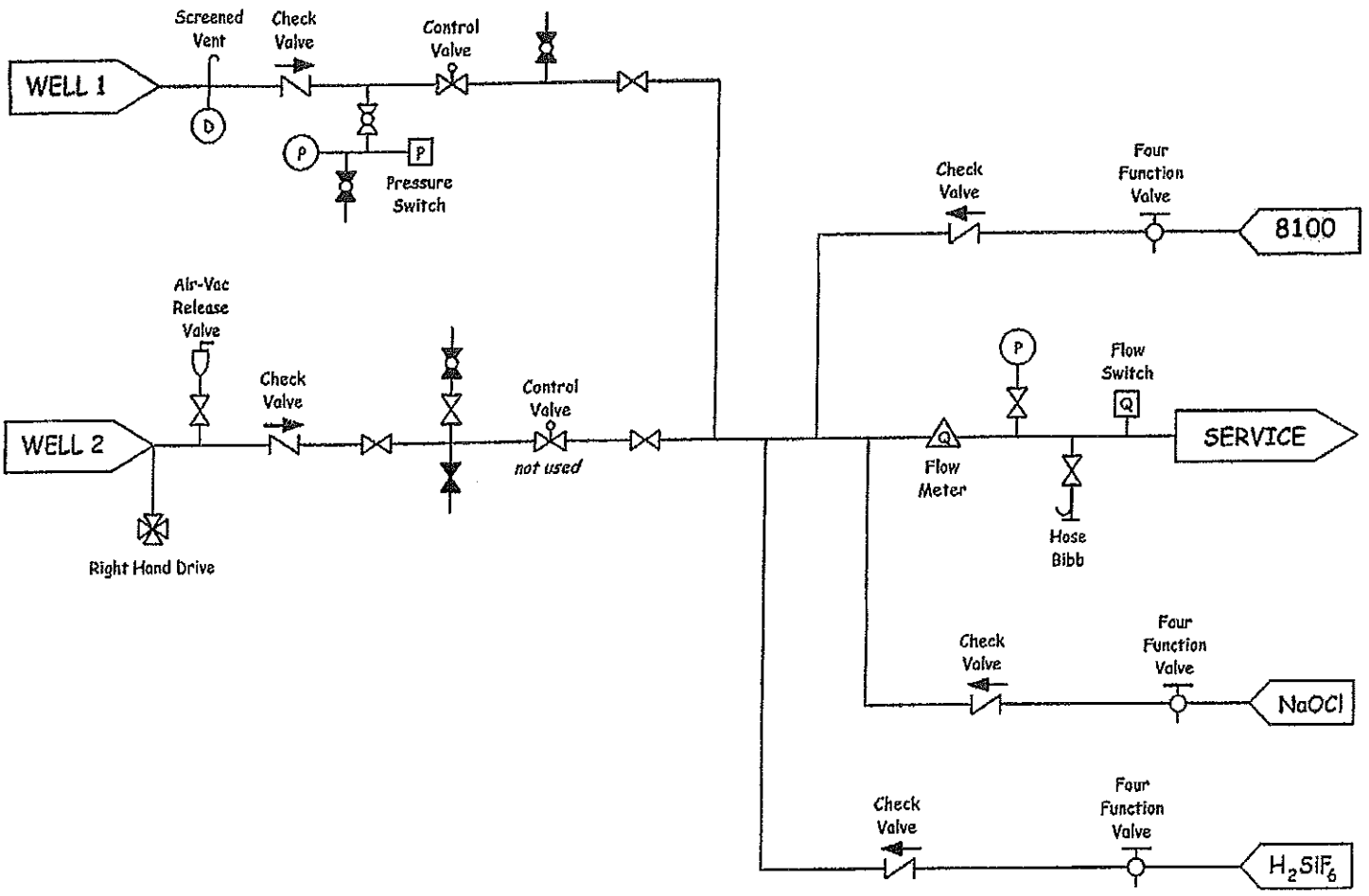
Are food grade lubricants used when in contact with drinking water? ☐ Yes ☐ No

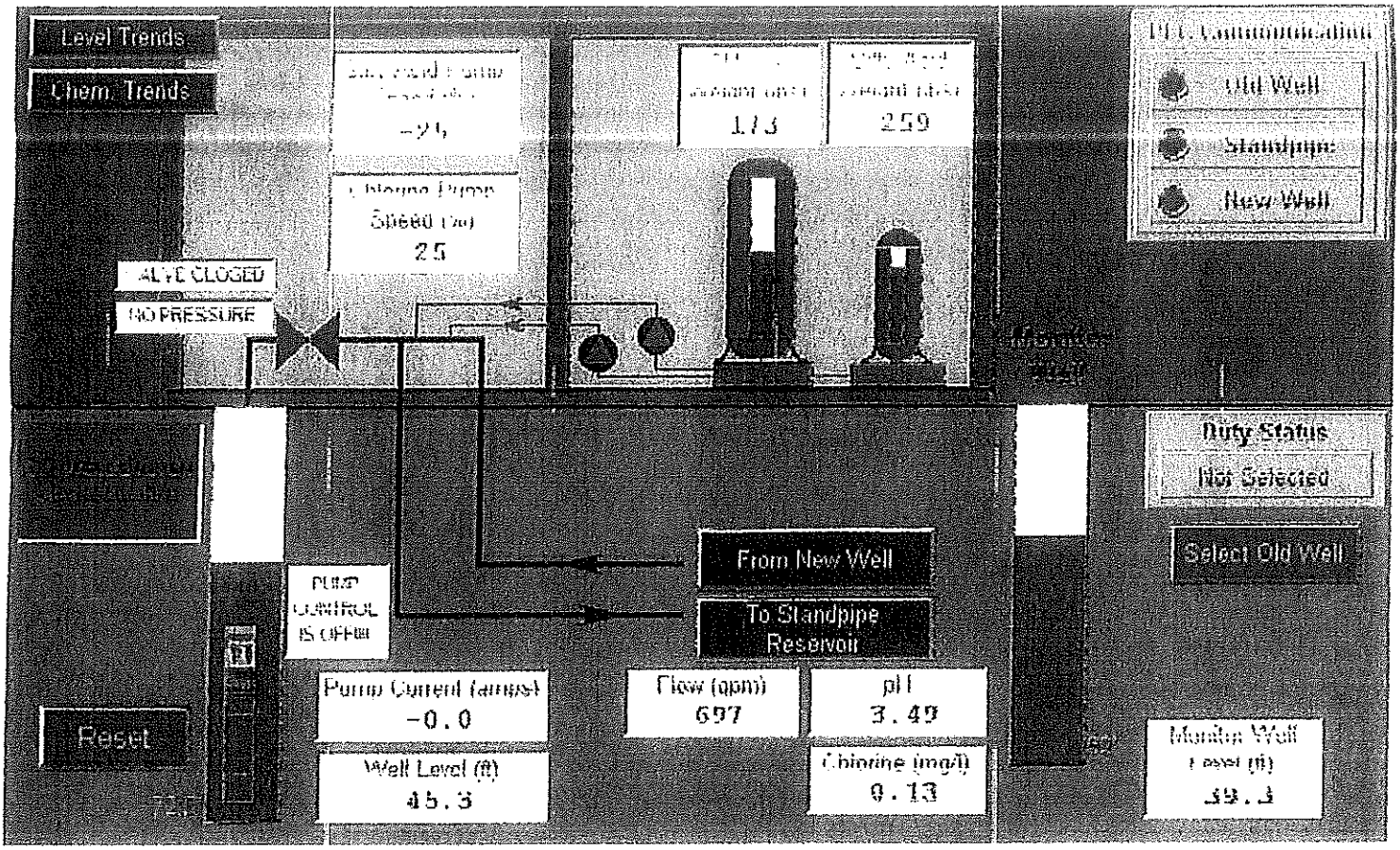
Draw a schematic of water flow from the source(s) through the treatment plant and label chemical feed points.

SCADA diagrams and print out may be attached to this form, check this box if they are: ☐

SEE ATTACHED

Draw a schematic of water flow from the source(s) through the treatment plant and label chemical feed points.




Level Trends
Chem. Trends
173
259
25
ALVE CLOGED
NO PRESSURE
PLC Communication
Old Well
Standpipe
New Well
Duty Status
Not Selected
Select Old Well
From New Well
To Standpipe Reservoir
PUMP CONTROL IS OFF!!!
Pump Current (amps)
-0.0
Well Level (ft)
45.3
Flow (gpm)
697
pH
3.49
Chlorine (mg/l)
0.13
Monitor Well Level (ft)
59.3
Reset

****

DISTRIBUTION SYSTEM INFORMATION

Number of metered service connections: 675

Number of unmetered service connections: ZERO

Population: 1688 (multiply total # of service connections by 2.5 to determine)

List the communities served by the water system: BAILEYVILLE

Does the system have a leak detection program? ☒ Yes ☐ No

Unaccounted For Water: 18 % *If above 10%, utility needs leak detection program.*

(Discussion topics include: fire uses, unmetered connections, leak detection, pipe types – cast iron)

Are meters calibrated according to PUC regulations (every 8 yrs)? ☒ Yes ☐ No

Are there any low pressure points in the distribution system? ☐ Yes ☒ No

Where are they, and what is the pressure? —

Are plans of the distribution system available and current? ☒ Yes ☐ No

Booster Stations

LOCATION			
# OF Pumps/Type			
Pressure Tanks			
Chemicals Applied?			
Notes?			

Describe how the booster station(s) operates (on/off by pressure switch, VFDs, bladder tanks, etc.). —

Are there separate pressure zones in the system? NO

Piping

Is there asbestos cement (AC, Transite) pipe in this system? ☐ Yes ☒ No

If yes, is the system on a 9 year monitoring schedule for asbestos? ☐ Yes ☐ No ☒ N/A

How often is the system flushed? ☐ Spring ☐ Fall ☒ Both ☐ Other: _____

Is a directional flushing program used? ☒ Yes ☐ No

Have there been water quality complaints? ☒ Yes ☐ No

If yes, how have they been handled? SUPERINTENDENT

Do personnel have the proper equipment to maintain the distribution system? ☒ Yes ☐ No

Are valves regularly exercised? ☐ Yes ☒ No

Has a hydraulic model been performed on the system? ☐ Yes ☒ No

Is it current? N/A ☐ Yes ☐ No

Are swing tie records complete and current? ☒ Yes ☐ No

Is GPS used for infrastructure location? ☐ Yes ☒ No

Cross Connection Control

Does the system have a cross connection program (high or low hazard)? ☒ Yes ☐ No

(A Community PWS with high or low hazards is required to have a cross connection control program. See Maine Cross Connection Rules.)

Is the plan current? ☐ Yes ☐ No

When was it last updated? UNKNOWN

Are the backflow prevention devices installed approved per the Maine Internal Plumbing Code (MIPC)? ☒ Yes ☐ No

(Approved devices are "listed and labeled" by approved standards organizations such as NSF, IAPMO, ASSE, ASME, and CSA)

Are testable devices tested at least annually as required by the MIPC? ☒ Yes ☐ No

(Review testing records)

Have testable devices been tested by a certified backflow tester? ☒ Yes ☐ No

(Maine Internal Plumbing Code accepts NEWWA, BPA, or ASSE certification. Review testing records)

Does the system require residences to install an X-connection control device? ☒ Yes ☐ No

Notes: NEW SERVICES REQUIRE A BACKFLOW PREVENTION DEVICE.

Distribution System Sampling Information

How often are bacteriological samples taken? TWO

Does the water system submit monthly reports? ☒ Yes ☐ No

Does the DWP have a sampling site plan on file? ☒ Yes ☐ No

Is it up to date? ☒ Yes ☐ No

Is the system using it? ☒ Yes ☐ No

Does the sampling plan provide an accurate representation of the distribution system? ☒ Yes ☐ No

Notes: _____

_____

Storage Tank Information

TANK NAME	RESERVOIR			
Location	TOWER ROAD			
Volume (gals)	1,000,000			
Type	BURIED GROUND STORAGE TANK			
Manufacturer (if known)	CAST IN PLACE			
Date of Construction	1978			
Date of Last Inspection	2018 - VISUAL			
Protected from vandalism?	YES: LOCKED HATCH CABINET ALARM			
Can tank be isolated from system?	YES			
Overflows/ Drains screened?	YES			
General Condition	BURIED			
Delta H for normal oper. Range	2.7 FT			
% of tank volume turned over each day	10%			

How many days of storage does the system have? ONE TO TWO

What controls the tanks levels? LEVEL SENSOR USED TO CONTROL WELLS

Are hatches locked? ☒ Yes ☐ No

Do ladders have restricted access? ☒ Yes ☐ No

Do the tank sites have restricted access (e.g. locked fence?) ☒ Yes ☐ No

HATCH LOCKED. NO FENCING. ACCESS ROAD GATED.

Additional Storage tank table as needed:

TANK NAME				
Location				
Volume (gals)				
Type				
Manufacturer (if known)				
Date of Construction				
Date of Last Inspection				
Protected from vandalism?				
Can tank be isolated from system?				
Overflows/ Drains screened?				
General Condition				
Delta H for normal oper. Range				
% of tank volume turned over each day				

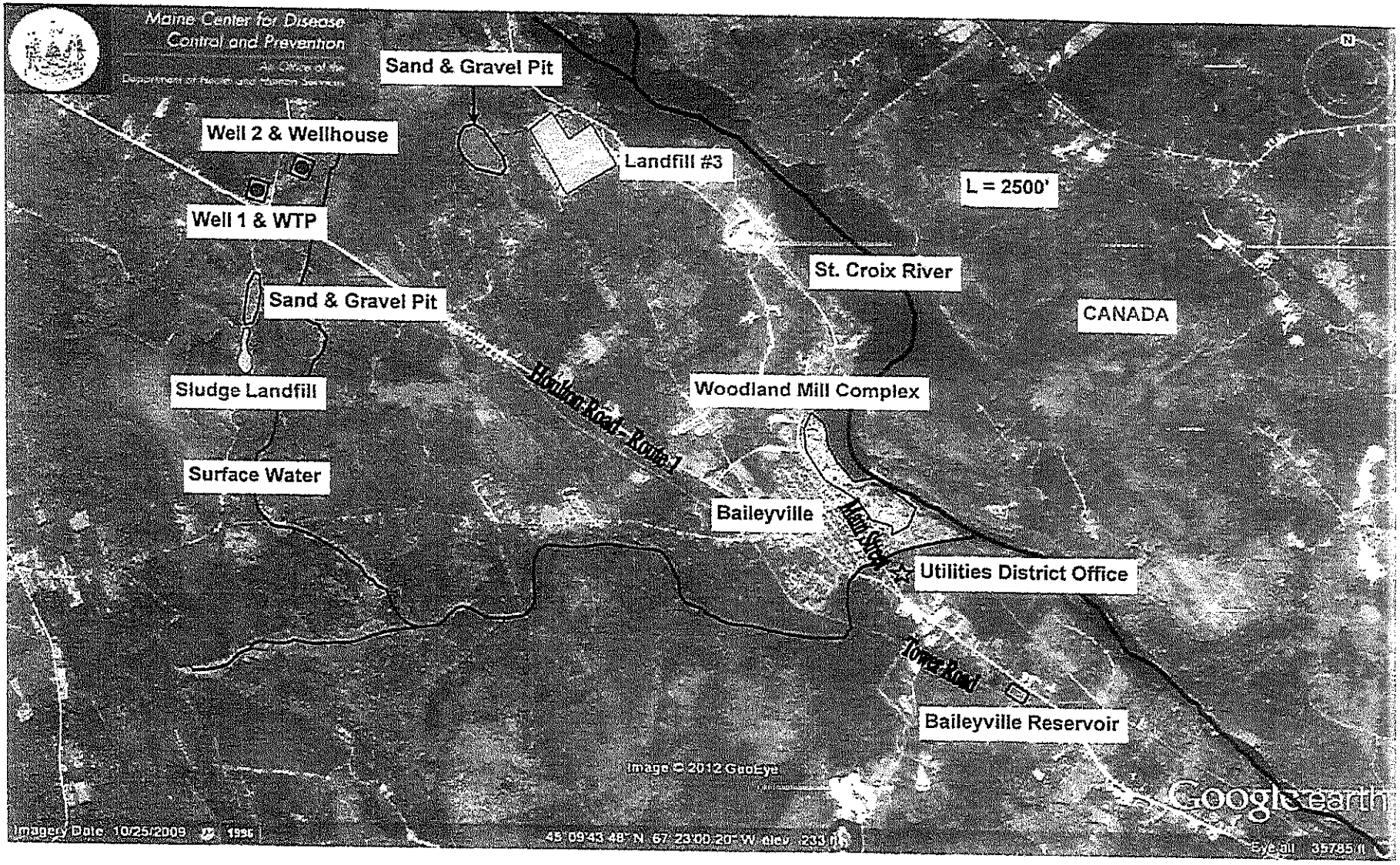
Notes: _____

_____

Draw a schematic of the distribution system and label major facilities (storage tanks, pump stations, etc.)

SCADA diagrams and print out may be attached to this form, check this box if they are: ☐

SEE ATTACHED


Maine Center for Disease Control and Prevention
Sand & Gravel Pit
Well 2 & Wellhouse
Landfill #3
L = 2500'
Well 1 & WTP
St. Croix River
Sand & Gravel Pit
CANADA
Sludge Landfill
Woodland Mill Complex
Houlton Road - Route 1
Surface Water
Baileyville
Main Street
Utilities District Office
Tower Road
Baileyville Reservoir
Image © 2012 GeoEye
Google Earth
Imagery Date: 10/25/2009
45°09'43.48" N 67°23'00.20" W elev 233 ft
Eye alt 35785 ft

****

SECURITY

Are facilities secure? (locked, alarmed, checked) ☒ Yes ☐ No

****

OPERATOR CERTIFICATION

Use the tables below to determine the operator classification needed by the PWS

Treatment System Classification Point Values

Item	Points	
Size (2 point minimum to 10 point maximum)		
Maximum population (1 point minimum to 5 points maximum)	1 pt per 10,000	1
Design flow average (1 point minimum to 5 points maximum)	1 pt per MGD	1
Water Supply Sources		
Groundwater	3	3
Groundwater under the influence of surface water	5	
Surface Water	5	
Chemical Treatment / Addition Processes		
Fluoridation	5	5
Chlorination	5	5
Chloramination	10	
Chlorine Dioxide	5	
Ultraviolet Light	5	
Ozonation	10	
pH adjustment (calcium carbonate, carbon dioxide, hydrochloric acid, calcium oxide, calcium hydroxide, sodium hydroxide, sulfuric acid, other)	5	
Stability or corrosion control (calcium oxide, calcium hydroxide, sodium carbonate, sodium hexametaphosphate, other)	5	5
Coagulation & Flocculation Process		
Chemical addition (aluminum sulfate, bauxite, ferrous sulfate, ferric sulfate, calcium oxide, bentonite, calcium carbonate, carbon dioxide, sodium silicate, other)	1 pt per chemical coagulant added (5 points max.)	
Rapid mix units:		
Mechanical mixers	3	
Injection mixers	2	
In-line blender mixers	2	
Flocculation tanks:		
Hydraulic flocculators	2	
Mechanical flocculators	3	
Clarification / Sedimentation Process		
Horizontal Flow (rectangular basins)	5	
Horizontal Flow (round basins)	7	
Solid-contact sedimentation	15	
Inclined-plate, tube sedimentation	10	
Dissolved air flotation	30	
Filtration Process		
Single media filtration	3	
Dual or mixed media filtration	5	
Microscreens	5	
Diatomaceous earth filters	5	
Cartridge filters - As a pre-filter - For microbiological removal	 2 5	
Membrane filtration (reverse osmosis, micro, ultra, nano)	10	
Slow sand filters	5	
Direct filtration	5	
Pressure or greensand filtration	5	
Other Treatment Processes		

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Aeration	3
Packed tower aeration	5
Ion exchange / softening (cation, anion, adsorptive) - For control of a primary MCL contaminant - For control of a secondary MCL contaminant	 5 2
Lime - soda ash softening	5
Powdered activated carbon	5
Other Processes	0 to 15
Residuals Disposal	
Discharge to lagoons	5
Discharge to lagoons and then raw water source	8
Discharge to raw water	10
Disposal to sanitary sewer	3
Mechanical dewatering	5
On-site disposal	5
Land application	5
Solids composting	5
Facility Characteristics	
Instrumentation:	
The use of SCADA or similar instrumentation to provide data with no process operation	0
The use of SCADA or similar instrumentation to provide data with limited process operation	2
The use of SCADA or similar instrumentation to provide data with moderate process operation	4
The use of SCADA or similar instrumentation to provide data with extensive or total process operation	6
Gravity Fed Systems Total atmospheric storage less than average day design flow	5

2

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Treatment Classification

Classification	Total Points (From App. A.)
Very Small Water System (VSWS)	19 or less and serving <500 Pop.
Class I	19 or less
→ Class II	20 to 34
Class III	35 to 47
Class IV	48 or more

Distribution Classification

Classification	Population Served
Class I	1,500 and less
→ Class II	1,501 to 15,000
Class III	15,001 to 50,000
Class IV	50,001 and over